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09/776,255	02/02/2001	Robert W. Anthony	0550862-0013	9733

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Orchid Sstems, Inc.  
103 Old Colony Road  
Wellesley, MA 02181

EXAMINER
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MEINECKE DIAZ, SUSANNA M

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

BEST AVAILABLE COPY



Robert W. Anthony  
103 Old Colony Road  
Wellesley, MA 02481

Ms. Susanna Meinecke Diaz  
United States Department of Commerce  
United States Patent and Trademark Office  
Commissioner of Patents  
PO Box 1450  
Alexandria, VA 22313-1450

March 10, 2005

Dear Ms. Diaz:

Attached is a response to a Requirement for Information that was dated 2/15/2005 regarding Application/Control Number 09/776,255 (Art Unit 3623).

The questions asked in the communication regarded the details of how data stream transformation projects were typically evaluated before the invention. Specifically:

- 1) How were data stream transformation projects planned and carried out?
- 2) How was the qualification of a prospect's project previously performed (regardless of what type of project it was)?

Also, the details of the underlying methodology employed to assess customer's wireless solution needs for integration. Specifically:

- 3) Explain how this prior methodology compared to the claimed steps.

In response to question #1 above – data stream transformation projects were planned and carried out through a series of discussions with increasingly technical personnel resources of both the Vendor and the Prospect. The discussions were either onsite with the prospect or over the telephone. The tangible result from these discussions included:

- designs of increasing detail (*conceptual, functional and detail*), and
- a price quotation from the Vendor.

**If no purchase order is issued by the Prospect in a reasonable time frame, the Prospect and its Data Stream Transformation Project Project were not qualified** and significant Vendor resources were wasted. If the Prospect issues a purchase order either to this Vendor or to a competing Vendor, the Prospect and Project were qualified. If this Vendor receives the Purchase Order, its programmer/s would schedule and deliver the transformation as specified in the detail design.

Exhibit 1 attached communicates how projects were planned and describes the personnel who carried it out. Exhibit 1 contains two documents, the first titled SIMPLIFIED EXAMPLE OF OLD AND WELL KNOWN APPROACH TO QUALIFY

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**DATA STREAM TRANSFORMATION PROJECT (pages 1 and 2) plus a sample  
TELESHAPER CUSTOMER QUESTIONNAIRE.**

As illustrated by the simplified example In Exhibit 1, the *conceptual design* could be as simple as a Prospect warehouse manager pointing to a variable data field on his office computer terminal and saying to a Vendor sales person that he wants that field to be presented and edited in real time through his cell phone display or through a wireless palm top device.

Also as illustrated in Exhibit 1, the *functional design* might be as simple as the Vendor sales support technician, interviewing a Prospect material handler and related supervisor to document the Prospect software application name, its transaction type targeted, the computer operating system, the network protocol, the distances involved and a description of the purpose of the wireless device. Most often, several additional Prospect personnel had to be interviewed to gather answers to these questions. The second document in Exhibit 1, titled TELESHAPER CUSTOMER QUESTIONNAIRE, reflects the questions asked in person or faxed and emailed to the appropriate Prospect personnel.

As partially illustrated in Exhibit 1, in the *detail design* a Vendor programmer went onsite to configure requisite components. The Vendor programmer would complete the project onsite or configure communications to continue the work or provide technical support offsite via modem. A key improvement in the patent application is starting with a remote communications connection in order to develop the design phases and perform the qualifications before expending Vendor technical resources onsite. At the same time, this means that details are captured in digital format whereas past projects were often designed from screen prints; the impact is similar to modifying a document that arrives digitally via email allowing cut & paste edits as opposed to hard copy arriving via the post office where you must start with a blank document or else scribble edits with a pencil.

In response to questions 2 and 3 above - qualification steps were performed by three different categories of Vendor personnel throughout the three design phases (conceptual, functional and detail). For example, the Vendor salesperson might disqualify a project during the conceptual design phase when 'inquiring about alternative approaches' (Step 270) and learning that the desired transformation is available to the Prospect for free when they upgrade their application software and that this upgrade is the most likely Prospect decision. Another example is when a Vendor programmer might disqualify a project during the detail design phase by 'determining client device targeted by the transformation' (Step 230) is not feasible by the Vendor. In this scenario, the Prospect may desire devices using satellite communications with cruise

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ships that are not supported by the Vendor for technical reasons or international political restrictions.

In fuller response to all three questions, Exhibit 2 and Exhibit 3 are attached representing normal - as opposed to simplified - detail design examples for wireless device integration. The example in Exhibit 2 was prepared by a Vendor while the example in Exhibit 3 was prepared by a Prospect.

Exhibit 2, prepared by Vendor personnel, is titled PROJECT REQUIREMENTS DOCUMENT. It was developed through onsite visits, telephone discussions, faxes of existing application 'big screen' printouts with written comments and iterations of the design document itself following edits by the Prospect. It reflects how planning was performed, including space for Prospect approval initials on the lower right of 'little screen' portable device layouts illustrated on pages 4-11.

In preparation for answering the requisite questions before quoting any custom project, the Vendor salesperson would go onsite and write lengthy notes while 'determining the Prospect's business initiative' (Step 210) by viewing the prospect's existing computer application and hearing the description of the desired transformation. (Rather than the Vendor salesperson going onsite and writing notes, the invention connects the Vendor technicians to the Prospect's existing application to exercise the application directly, copying any desired detail in digital format.)

'Determining the payback' (Step 220) compares expected gains against probable costs. For example, an inexpensive business initiative that improves productivity for two employees in the mailroom may not justify a transformation investment while an expensive business initiative that improves productivity for a thousand employees may be an easy investment to justify. Without the invention, the Vendor salesperson asks the productivity questions of the Prospect and then asks for cost guesses from Vendor technicians who may request more detail than the Vendor salesperson can provide. Instead, the Vendor technician uses the invention to detail the Prospect's business initiative directly in Step 210 combined with the 'ballpark' costs perceived by the Vendor technician while exercising the existing Prospect application in order to achieve Step 220.

'Determining client device targeted by the transformation' (Step 230) also may be achieved by the Vendor technician using the information gained in Step 210. This allows disqualifying a Prospect early in the cycle if the Prospect initiative includes interaction with an unusually long variable data field, requiring a device with a screen size that is not available through the Vendor. Or if a certain function, such as being waterproof, is desired by the Prospect that is problematic for the Vendor, the Prospect may be disqualified before the Vendor salesperson spends any more time on the

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project. Without the invention, a mismatch between the Prospect need and the Vendor's access to a suitable client device might not become apparent until the Prospect business initiative had gone into the detail design stage by the Vendor programmer, several days into the documentation effort.

'Inquiring about existing host systems' (Step 240) is also achieved when performing Step 210, where the Vendor technician connects and exercises the Prospect's computer application. The traditional alternative occurred late in the cycle, after the Vendor technician is onsite.

'Searching for similar prior transformations' (Step 250) was traditionally performed late in the cycle when a Prospect requested references.

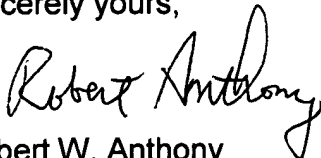
In the old approach, 'inquiring about deployment timing' (Step 260) or measuring urgency was most accurately answered by the delay before purchase was authorized by the Prospect. The new approach defines urgency by the delay before a connection is authorized by the Prospect – no Vendor technical time is expended if the connection is not authorized in a timely fashion.

'Inquiring about alternative approaches' (Step 270) was also traditionally answered most accurately by the Prospect decision whether to purchase the Vendor proposal.

Exhibit 3 is a detail design presented in an alternative format, as prepared by a Prospect. It is titled SYSTEM REQUIREMENTS PSD DATA COLLECTION SYSTEM. It also reflects the 'traditional' approach to presenting information for a Prospect data stream transformation project. Detail designs provided by the Vendor typically answer some of the qualifying steps but not all. In this example, step 220, 'Determining the payback' and step 270 "Inquiring about alternative approachees' are not provided.

I appreciate your continued interest and hope that I have answered your questions with an appropriate level of documentation.

Sincerely yours,



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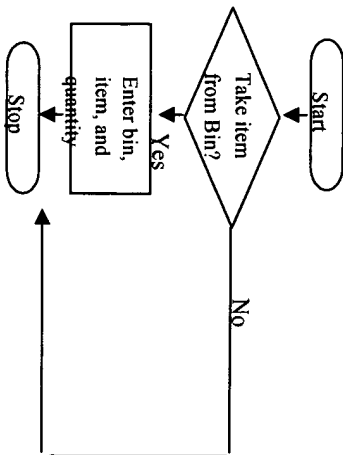
### **Exhibit 1**

- Simplified Example of Old and Well-known Approach to Qualify a Data Stream Transformation Project showing the personnel and activities involved with each of the three design phases – conceptual, functional and detail.
- sample TELESAPER CUSTOMER QUESTIONNAIRE

**Exhibit 1**

**Simplified Example of Old and Well-Known Approach To Qualify Data Stream Transformation Project, page 1**

DESIGN PHASE		DESCRIPTION	EXAMPLE	VENDOR PERSONNEL	BUYER PERSONNEL	NUMBER OF MEETINGS
<u>Conceptual</u>		Discussion notes	"I want to change data without walking to a desktop computer screen."	Sales person	Warehouse manager	1 alone plus 2 with technical sales support person
<u>Functional</u>		Sketch and write up on targeted procedures	"When I take an item from the warehouse bin location, I want to use a wireless handheld to tell the computerized inventory system that I took the item."	Sales support technician	Materials handler or supervisor	2
<u>Detail</u>		Screen layouts, file names, field names, field sizes, interactions, etc.	Big screen, little screen, Item master file, item ID, Description, Bin ID, Bin quantity, etc.  (Continued on next page)	Programmer	Applications programmer or systems administrator	1-20



**Exhibit 1**

**Simplified Example of Old and Well-Known Approach To Qualify Data Stream Transformation Project, page 2**

**DESIGN**

**PHASE      DESCRIPTION      EXAMPLE**

*Detail (continue Background*

Not shown

System overview

Not shown

Scope of Work

Not shown

System components

Not shown

Existing application

Existing Logon, Inventory Transaction, Error Handling and Logoff screen description or printouts (not shown)

Transformation

Portable screen format, description of variable data fields, desired interaction and error handling detailed.

Bin:-----

Item:-----

Qty:-----

***Variable, Size, Type***

Bin, 1-4, Alpha/Numeric

Item, 15, Alpha/Numeric

Qty, 0-7, Numeric

***Interaction***

Enter the Bin identification, the Item number and the Quantity taken.

(Must provide background process to automatically update the existing inventory application bin quantities.)

***Error Handling***

To be determined





## TeleShaper Customer Questionnaire

### **The TeleShaper™ server**

is a device that sits on your network and emulates the operation of your Legacy applications as if it were an intelligent user. To appear as a normal user to your host (and preclude any changes necessary on your host system), Orchid needs to gather information to configure the TeleShaper™ server properly for your situation. Please answer the following questions to the best of your ability. If you need further information from Orchid to assist you in filling out this form, please email our Technical staff at: [support@teleshaper.com](mailto:support@teleshaper.com).

Your Name & Title: \_\_\_\_\_

Your phone number,  
and email address: \_\_\_\_\_

### **General Host and Application questions:**

(All of these questions are referring to the host, and host application whose data stream the TeleShaper server will be interpreting and reformatting.)

1. Do you know what type of machine the Host Server is?  
(eg: IBM AS/400, DEC VAX, RS-6000, Aviiion, etc.) \_\_\_\_\_
2. Does the host have an IP address? **Y** **N** If so, it is: \_\_\_\_\_
3. What's the name of the app. that you are running on the host & version? \_\_\_\_\_
4. Is it a custom application? **Y** **N** 5. What is it written in? \_\_\_\_\_
6. Is the software provider (commercial, contract, or staff) still available to provide support for this application? **Y** **N**
7. Who within your organization provides application support for this program? \_\_\_\_\_
8. Their phone number: \_\_\_\_\_ 9. Their email: \_\_\_\_\_
10. Is this a "green screen" application, or does it have a "windows-like" interface? ☐ 'GREEN SCREEN' ☐ WINDOWS
11. What specific tasks do you want to transform?: (eg: Order Entry, PO Receipt, Field Service Data entry, etc.) \_\_\_\_\_
12. Where do you anticipate the data to perform this transaction will come from?  
(eg: Pager, eMail, XML Document, RF Terminal device, WAP Phone, Web Browser, voice system, etc.) \_\_\_\_\_
13. Do you have this new 'client device' already? \_\_\_\_\_
14. How many users do you anticipate will be utilizing this new client? \_\_\_\_\_
15. Does it need to be available 7 days a week, 24 hours per day? **Y** **N** If not, what hours must it be available? \_\_\_\_\_

### **Client terminal questions:**

16. From which type of client do you currently run the application?: ☐ PC ☐ DUMB TERMINAL" Other: \_\_\_\_\_
17. What emulation is used to access the host? (eg: VT220, IBM 5250, etc.): \_\_\_\_\_
18. If you are running this application from a PC client, what software do you use to access it? (eg: Attachmate, Reflections, PC-Term, etc.): \_\_\_\_\_
19. Is your PC/Terminal connected to a network? **Y** **N**
20. What type of network is it?: (eg: Ethernet, TwinAX, Token Ring) \_\_\_\_\_
21. Does your PC/Terminal have an IP address? **Y** **N** ( if so, it is: . . . )
22. Who within your organization provides network support? \_\_\_\_\_
23. Their phone number: \_\_\_\_\_ 24. Their email: \_\_\_\_\_

Thank you for filling this out! Please fax to: 781/431-7013

**Exhibit 2**

–PROJECT REQUIREMENTS DOCUMENT pages 1-8, prepared by Vendor personnel for use as a detail design.

## **Project Requirements Document**

### **Veterans Health Administration Medication Scan/Three Way Matching**

Customer Contact

Tim Egan

Author

Lewis Rompala

## Table of Contents

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**PROJECT INFORMATION**

Date: November 1, 1999

Customer Name: Veterans Health Administration

Customer Address: Atlanta V.A. Medical Center  
1670 Clairmont Road  
Decatur, Georgia 30033

Application Name: Computerized Patient record System (CPRS)

Application Revision:

Operating System: Digital Alpha

Operating System Revision: VMS Version 6.1+

Customer Contact: Tim Egan

Customer IS Contact: Harold Carlisle

Customer User Contact:

Customer Purchasing:

ORCHID SYSTEMS Engineer: Lewis Rompala (781)431-7446 ex.766

ORCHID SYSTEMS Account Manager: Robert Anthony (781)431-7446 ex. 268

12345678901234567890

2  
3  
4  
5  
6  
7  
8

#### FORMAT SCREEN

Example of 8 rows X 20 columns screen format.

#### FUNCTION KEYS

F4 - Exit Available when displayed on Client screen.

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

The Location request  
VVVVVVVVVVVVVVVVVVVVVVVVVVVVVV

#### ERROR MESSAGES (Scroll Function)

ERROR messages will be read off the host screen in 20 character sections and presented on the handheld directly as reads (see example). The "VVV..." indicates there is more message below. Arrows down, [ENTER] to Continue

Host returns to input field with error. Error Data remains on client screen and the user is prompted for data.

Invalid data entered, (example: alpha in digit field) ScreenShaper will filter data and return to input prompt, leaving invalid data on the client screen and the user is prompted for data.

Host Re-sync Error will return to the top of the transaction, whenever possible.

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

VARIABLE	SIZE	TYPE
Active Medication	1 - 20	Printable
Bed Number		
Dosage		
Password		
Patient Name		
Room Number		
Route		
Social Security Number	9	Digits
User Id		

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

SYSTEM LOG ON F4
-----
User ID: 12345678
P/W: 12345678
-----
Enter User ID
Enter Password

### LOG ON SCREEN

Enter User Id, Password then  
ScreenShapper connects to Host.

F4 - Ends application

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_



Scan Medications F4
-----
SS: 123456789
Name 1 - 20
Room #:
Bed #:
-----
Scan SS Number
Confirm (Y/N):

**SCAN MEDICATIONS**

Scan Social Security Number.  
Display Social Security Number,  
Patient Name, Room Number and Bed  
Number.

Confirm:

N - Returns to Scan SS prompt

Y - Continues

F4 - Returns to top of the  
transaction, does not update the  
host, at the top of transaction  
returns to Sign on screen.

Scan Medications F4
-----
Active Medication..
...continuation 21-40
Dosage 1 - 20
Dosage Route
-----
Scan Medication ID

Display Active Medication, Dosage,  
and Route.

Scan Medication ID number.  
Compare scanned information to  
Pharmacies information

Correct:

N - Display error message

Y - Display Medication Match

Scan Medications F4
-----
Medication Message
-----
Enter to Continue

Enter to continue.

If more medications:

go to the Display Active  
Medication Screen.

Else

Go to the Scan SS prompt.

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

**SCREEN ACCEPTANCE:**

The screens shown in this document represent the exact screens that ORCHID SYSTEMS will deliver for each transaction listed. After acceptance, changes to these screens must be made using an ORCHID SYSTEMS PRD Change Request Form. Additional services will be quoted as applicable.

Customer: Veterans Administration ORCHID SYSTEMS

By: \_\_\_\_\_

By: Lewis Rompala

Title: \_\_\_\_\_

Title: Programmer Analyst

Date: \_\_\_\_\_

Date: 11/1/1999

Please Fax Signed Document to (781)431-7013

**Exhibit 3**

– SYSTEM REQUIREMENTS / PSD DATA COLLECTION SYSTEM, pages 2/26 through 26/26. This is a detail design prepared by Prospect personnel.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

11/2/99

## 1.0 INTRODUCTION

### 1.1 Background

Boeing Military Programs – Wichita Division (MP-WD) is implementing a parts Rotobin system for select parts in the GOLD inventory system. These Rotobin parts will have a barcoded "Part Number" and "Bin Location" on every bin label.

The JCN (Job Control Number), the Part Number information, the Quantity issued, and the mechanic's Social Security Number (Badge Number) will have to be entered into the T30 screen of the GOLD application for every 'Issue' transaction. The Part Number, the Quantity Received and the Bin Location will have to be entered into the T10 screen of the GOLD application for every 'Receipt' transaction. The GOLD inventory management software is a UNIX server based system.

### 1.2 System Requirements

Boeing MP-WD shall use a combination of RF and hard-wired barcode scanners to read the barcoded information on Rotobin labels (See Attachment A). The RF barcode scanners are intended for use at locations where PC's and hard-wired scanner's are impractical. Once scanned, the barcoded information off of the Rotobin label shall be read into the appropriate GOLD application screen (See Attachments B or C). Once the barcoded data is read into the T10 (Receipt) or T30 (Issue) screen, the user shall be prompted for the "Quantity" to be issued or received. On an 'Issue', once the "Quantity" is entered the user shall be prompted to Scan the mechanic's badge for the barcoded Social Security Number.

### 1.3 Scope of Work

The Supplier shall be responsible for the following tasks as part of this project:

- Review transaction process for system implementation.
- Provide ScreenShaper programming for the portable RF terminals to support the identified transaction.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

- Provide ScreenShaper programming training at the Boeing-Wichita facility for six Boeing people.
- Ensure proper transaction processing between the RF barcode scanners and the GOLD application.
- Post installation support as outlined in the purchase order.

Boeing MP - WD shall be responsible for the following tasks as part of this project:

- Providing all necessary computer access required for developing the ScreenShaper transaction(s).
- Providing a purchased copy of the ScreenShaper Software.
- All associated terminal cabling and installation.
- The various network connections required to complete the task.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

## **2.0 SYSTEM ARCHITECTURE**

### **2.1 Components**

Boeing MP - WD has already purchased the ScreenShaper software and has installed it on an HP 9000, which uses an HP UNIX 10.2 Operating System. The Symbol LRT3840 RF barcode scanners are also already purchased. The Supplier shall be responsible for developing and integrating the ScreenShaper software, so that the Symbol LRT3840 RF barcode scanners and the GOLD application can effectively interact and exchange information via an Ethernet-TCP/IP network as outlined in the following sections.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

### **3.0 BOEING MILITARY PROGRAMS – WICHITA DIVISION'S IMPLEMENTATION**

#### **3.1 System Sign-On**

Users will be required to sign-on to the ScreenShaper Server System with a Username and Password. Once the Server Username and Password are validated, then the Server Software (ScreenShaper) shall direct the user logon to the GOLD application.

The GOLD application logon shall also require a Username and Password. Once the Username and Password are validated by GOLD, ScreenShaper shall automatically access the T10 Receiving screen or T30 Issue screen depending on the type of transaction that is selected by the user.

#### **3.2 T10 Receipt Transaction**

Once the T10 Receiving screen is accessed via ScreenShaper, the user shall be prompted, line item by line item, to Scan the requested fields. The user shall not be required to manually enter any keypad data, except for the "Quantity" of parts to be received.

#### **3.3 T30 Issue Transaction**

Once the T30 Issue screen is accessed via ScreenShaper, the user shall be prompted, line item by line item, to Scan the requested fields. The user shall not be required to manually enter any keypad data, except for the "Quantity" of parts to be issued.

#### **3.4 Application Error Handling**

The Supplier shall provide error handling routines and an appropriate action for every identified application error in the Problem Resolution section of this

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

document. The system ScreenShaper software shall be designed, so that a user can 'Escape out of' or 'Logoff' of the GOLD application at any point in a transaction.

### **3.5 Barcode Labeling Requirements**

The GOLD Rotobin project does not require any ScreenShaper generated barcode, but the ScreenShaper training shall include training on generating barcoded output out of the ScreenShaper product.

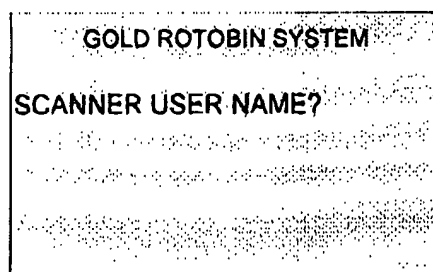


SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

## 4.0 LRT3840 HAND-HELD PROMPTING (JIT)

### 4.1 System Sign-on

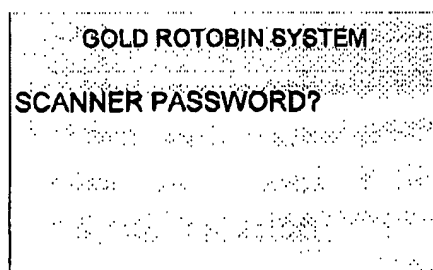
Users will be required to sign-on to the ScreenShaper System with a User Name and Password. Once the ScreenShaper User name and Password are validated, then ScreenShaper shall direct the user logon to the GOLD application. The GOLD application logon shall also require a User name and Password

**SCREEN DISPLAY:****SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Alpha-numeric/6-8  
Validation: Must be lower-case  
Comments:

**PROCEDURE:**

1. Scan or Key In ScreenShaper user name. Press ENTER if keyed.

**SCREEN DISPLAY:****SPECIFICATIONS:**

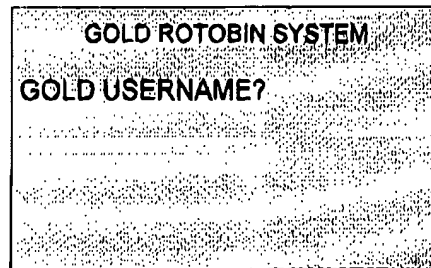
Entry Required: Yes  
Default: No  
Type/Length: Alpha-numeric/2-15  
Validation: Must be lower-case  
Comments: Cannot be scanned

**PROCEDURE:**

1. Key In the users ScreenShaper Password and press ENTER.

**SYSTEM REQUIREMENTS****PSD DATA COLLECTION SYSTEM**

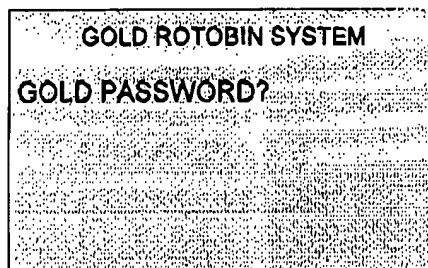
Once the user has entered their ScreenShaper signon the screen will display.

**SCREEN DISPLAY:****SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Char/6-8  
Validation:  
Comments:

**PROCEDURE:**

1. Scan or Key In GOLD user name. Press **ENTER** if keyed.

**SCREEN DISPLAY:****SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Char/6-8  
Validation: Must be lower-case  
Comments: Cannot be scanned

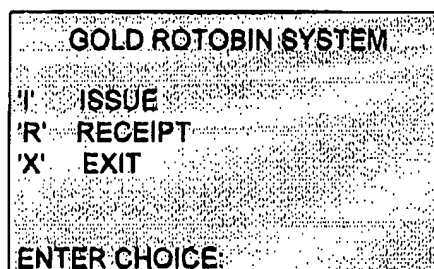
**PROCEDURE:**

1. Key In GOLD user password and press **ENTER**.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

## 4.2 Issue or Receipt Menu

Once the GOLD signon has been completed, then the screen will display.

**SCREEN DISPLAY:**

```
GOLD ROTOBIN SYSTEM
'I'  ISSUE
'R'  RECEIPT
'X'  EXIT
ENTER CHOICE:
```

**SPECIFICATIONS:**

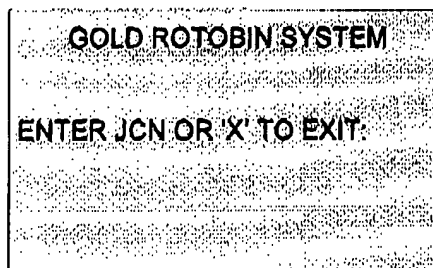
Entry Required: Yes  
Default: No  
Type/Length: Alpha/1 Char  
Validation: 'I', 'R' or 'X'  
Comments: Perform a check for 'X'

**PROCEDURE:**

1. Key In 'I', 'R' or 'X' and Press **ENTER**.

## 4.3 Issue Menus (T30)

Once the Transaction Type has been entered, then the screen will display.

**SCREEN DISPLAY:**

```
GOLD ROTOBIN SYSTEM
ENTER JCN OR 'X' TO EXIT:
```

**SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Alphanumeric/Var.  
Validation: 'X' or Valid JCN  
Comments: Perform a check for 'X'

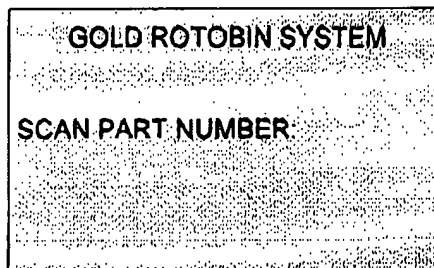
**PROCEDURE:**

1. Scan in a valid JCN or Key In 'X' and Press **ENTER** to Exit.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

### 4.3.1 Part Number Issue Transaction

Once a valid JCN has been entered, then the screen will display.

**SCREEN DISPLAY:**

GOLD ROTOBIN SYSTEM

SCAN PART NUMBER

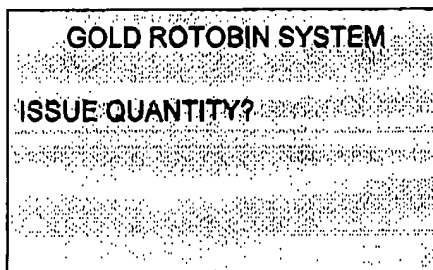
**SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Alphanum/Var.  
Validation: Valid Part Number  
Comments:

**PROCEDURE:**

1. Scan or Key In the Part Number. Press **ENTER** if keyed.

Once a Part Number is Scanned, then the screen will display.

**SCREEN DISPLAY:**

GOLD ROTOBIN SYSTEM

ISSUE QUANTITY?

**SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Numeric/Variable  
Validation:  
Comments: If Qty is greater than  
ab, then generate order.

**PROCEDURE:**

1. Key In the Quantity. Press **ENTER**.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

Once a Quantity is Keyed in, then the screen will display.

**SCREEN DISPLAY:**

GOLD ROTOBIN SYSTEM	
SSN:	

**SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Alphanum/12 Char  
Validation:  
Comments: Field consists of a "J"  
followed by a space and then 10  
digits.

**PROCEDURE:**

1. Scan in the SSN (Badge Barcode).

#### 4.3.2 Issue Summary Screen Transaction

Once the Social Security Number is scanned in, the screen will display.

**SCREEN DISPLAY:**

GOLD ROTOBIN SYSTEM	
JCN:	RBABL
PART#:	
BACC	1234567890123456
QTY:	12
SSN:	261-23-2612
ACCEPT TRANSACTION? (Y/N)	

**SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Alpha/1 Char  
Validation: 'Y' or 'N'  
Comments:

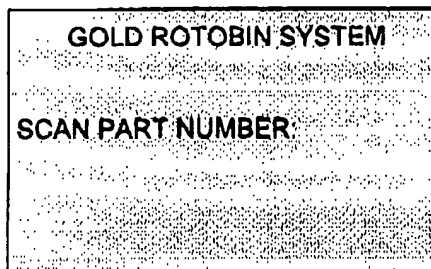
**PROCEDURE:**

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

1. Key In a 'Y' to accept the transaction or Key In an 'N' to cancel the transaction, then press ENTER.

#### 4.4 Receipt Menus (T10)

Once the Transaction Type is entered, then the screen will display.

SCREEN DISPLAY:

A screenshot of a computer screen with a grainy, high-contrast appearance. At the top, it says "GOLD ROTOBIN SYSTEM". Below that, it says "SCAN PART NUMBER:" followed by a series of asterisks indicating a text input field.

SPECIFICATIONS:

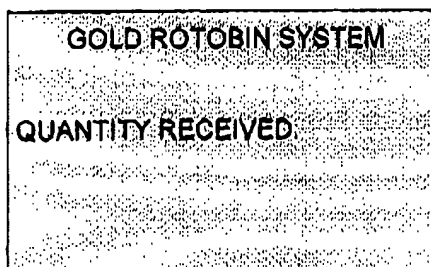
Entry Required: Yes  
Default: No  
Type/Length: Alphanum/Var.  
Validation: None  
Comments:

PROCEDURE:

1. Scan or Key In a valid Part Number, Press ENTER if keyed.

#### 4.4.1 Part Number Receipt Transaction

Once a valid Part Number has been entered, then the screen will display.

SCREEN DISPLAY:

A screenshot of a computer screen with a grainy, high-contrast appearance. At the top, it says "GOLD ROTOBIN SYSTEM". Below that, it says "QUANTITY RECEIVED:" followed by a series of asterisks indicating a text input field.

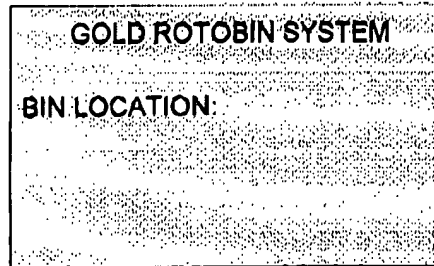
SPECIFICATIONS:

Entry Required: Yes  
Default: No  
Type/Length: Num/Var.  
Validation: No  
Comments:

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**PROCEDURE:**

1. Key In the Quantity Received and press **ENTER**.

Once a 'Quantity Received' has been entered, then the screen will display.

**SCREEN DISPLAY:**

GOLD ROTOBIN SYSTEM

BIN LOCATION:

**SPECIFICATIONS:**

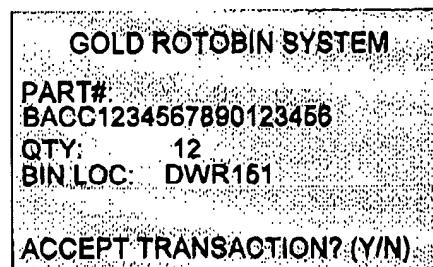
Entry Required: Yes  
Default: No  
Type/Length: Alphanum/Var.  
Validation:  
Comments:

**PROCEDURE:**

1. Scan or Key In a valid Bin Location. Press **ENTER** if keyed.

#### 4.4.2 Receipt Summary Screen Transaction

Once the Bin Location is scanned in, the screen will display.

**SCREEN DISPLAY:**

GOLD ROTOBIN SYSTEM

PART#:  
BACC1234567890123456

QTY: 12

BIN LOC: DWR161

ACCEPT TRANSACTION? (Y/N)

**SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Alpha/1 Char  
Validation: 'Y' or 'N'  
Comments:

**PROCEDURE:**

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

1. Key In a 'Y' to accept the transaction or Key In an 'N' to cancel the transaction, then press **ENTER**.



SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

#### 4.4.3 Receipt Summary Screen Transaction

Once the Summary is displayed and accepted is scanned in, the screen will display.

**SCREEN DISPLAY:**

GOLD ROTOBIN SYSTEM
VOUCHER NUMBER IS:
92893301
PRESS <ENTER> TO CONTINUE

**SPECIFICATIONS:**

Entry Required: Yes  
Default: No  
Type/Length: Numeric/8 char  
Validation: None  
Comments:

**PROCEDURE:**

1. Press **ENTER** to continue.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

## 5.0 SCREEN MAPPING SPECIFICATIONS

### 5.1 System Sign-On/Sign-Off

Users will be required to sign-on to the Server System with a Username and Password. Once the Server Username and Password are validated, then the Server Software (ScreenShaper) shall direct the user logon to the GOLD application, where the user will enter a GOLD Username and Password. Once the GOLD logon is completed, ScreenShaper shall navigate through the necessary applications screens, so that it arrives at the T10 Receipt Screen or the T30 Issue Screen.

<u>PROMPT</u>	<u>USER INPUT</u>
GOLD ROTOBIN	NONE
HPILOGIN:	(USERNAME)
PASSWORD:	(PASSWORD)
GOLDLOGIN:	(USERNAME)
GOLDPASSWORD:	(PASSWORD)
I, R or X	CHOOSE ONE

The ScreenShaper software shall provide a mechanism for system "LOGOFF" at any point in a transaction.

### 5.2 Part Receipt Transaction – T10 Screen

Every GOLD Rotobin Part Receipt Transaction will require the users to Scan or Key In the 'PART NUMBER', then manually Key In the 'QUANTITY', and finally Scan or Key In the 'BIN LOCATION'. See Table 1.

### 5.3 Part Issue Transaction – T30 Screen

Every GOLD Rotobin Part Issue Transaction will require the users to Scan or Key In the JCN number, the 'PART NUMBER', then manually Key In the 'QUANTITY', and finally Scan the mechanic's badge to record their Social Security number (SSN:). See Table 2.

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**GOLD Rotobin Part Receipt Transaction**

DATA FIELD	TYPE/LENGTH	ENTRY	SOURCE	KEYBOARD COMMAND
<b>MAIN MENU</b>				
Command Line	Alpha/4 char	'VMAI'	System Generated	<ENTER>
<b>INVENTORY WAREHOUSE MAINTENANCE SCREEN (Attachment D)</b>				
CSB	Alpha/6 char	'GOLDRB'	System Generated	<ENTER>
Part	Alphanum/var	Valid part number	Barcode Data	<ENTER> + <F6>
Once the 'Order' screen is entered, the correct 'order number' needs to be determined. ScreenShaper shall Scan this screen for the first order that has an 'open' status and then compare the received quantity to the 'qty-ord' quantity. If the received quantity and the ord-qty match then ScreenShaper shall process the T10 Receipt transaction, otherwise the transaction shall be kicked-back for a manual entry. See Attachment E.				
order	Alphanum/var	Order number from the 'Order' screen	System Generated	<ENTER>
line	Alphanum/Var.	The 'line ms-da' portion of the Order number	Barcoded Label	<ENTER> after the Scan
recvr	Alpha/1 Char	'R' for Receipt	System Generated	<ENTER>
part #	Alphanum/Var.	Barcoded Part Number	User	<ENTER> after a part # input
q recd	Numeric/Var	Manual entry of Quantity Received	'Keyed In' Data	<ENTER>
shpdoc	None	None	None	<ENTER>
fr loc	None	None	None	<ENTER>
awo	Alphanum/Var	Valid Work Order: Y9961	System Generated	<ENTER>
cond	Numeric/1 char	Condition Code of '2'	System Generated	<ENTER>
phyKCV	Alpha/2 char	Stockkeeper's Initials	System Generated	<ENTER>
caric	None	None	None	<ENTER>
avail	Alpha/1 char	'Y' for Yes	System Generated	<ENTER>
price	None	None	None	<ENTER>
laborP	None	None	None	<ENTER>
recd-e	Alpha/1 Char	'T' for Today's Date	System Generated	<ENTER>
recd-d	Alpha/1 Char	'T' for Today's Date	System Generated	<ENTER>
tag no	None	None	None	<ENTER>
bin-lo	Alphanum/Var	Barcoded Bin Location	Barcoded Label	<ENTER>
remark	None	None	None	<ENTER>
serial	None	None	None	<ENTER>
Command Line	None	None	None	<ENTER>
Display the System Generated Voucher Number on the Scanner, so that it may be copied to the paperwork.				

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**Table 1**

**SYSTEM REQUIREMENTS****PSD DATA COLLECTION SYSTEM****GOLD Rotobin Part Issue Screen**

DATA FIELD	TYPE/LENGTH	ENTRY	SOURCE	KEYBOARD COMMAND
jcn	Alphanum/5 chars	Barcoded 'jcn' number	Barcode label	<ENTER> after the Scan
from cond	Numeric/2 chars	02	System Generated	<ENTER>
part number	Alphanumeric/Var.	Boeing part number	Barcoded Label	<ENTER> after the Scan
voucher	Alpha/1 Char	'I' for Issue	System Generated	<ENTER>
issue qty	Numeric/Var.	Numeric Issue Quantity	User	<ENTER> after a numeric input
remarks	Alphanum/12 chars	Employee Badge Number	Scanned Data	<ENTER>
reason c	Alpha/1 Char	'N'	System Generated	<ENTER>
doc date	Alpha/1 Char	'J' for Today's Date	System Generated	<ENTER>
1348 rec	Alpha/1 Char	'E'	System Generated	<ENTER>
T30	None	None	None	<ENTER>
pogsp wo	None	None	None	<ENTER>
pocap wo	None	None	None	<ENTER>
afto	None	None	None	<ENTER>
supp doc	Alphanum/12 Chars	Employee Badge Number	Scanned Data	<ENTER>
signature	Alpha/Var.	Authorizing Mgr (TBD)	System Generated	<ENTER>
4411 rem1	Alphanum/10 Chars	Documentation Description	System Generated	<ENTER>
4411 rem2	None	None	None	<ENTER>
4411 rem3	None	None	None	<ENTER>
shop no	Alphanum/5 Chars	Shop Identifier	System Generated	<ENTER>
tkr	None	None	None	<ENTER>
need date	None	None	None	<ENTER>
work stop	Alpha/1 Char	'N' for No	System Generated	<ENTER>
IF AB IS GREATER THAN "issue qty", PRESS <ENTER> ONCE TO COMPLETE THE ISSUE TRANSACTION.				<ENTER>
IF AB IS LESS THAN "issue qty", PRESS <ENTER> FOUR TIMES TO COMPLETE THE ISSUE TRANSACTION.				<ENTER> X 4

**Table 2**

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM

## 6.0 PROBLEM RESOLUTION

### 6.1 Problem Identification

During the process of reviewing the current system it was attempted to create and identify errors that could occur in a screen shaping environment. This was accomplished by entering erroneous information wherever possible and reviewing the outcome of that information. Based on these outcomes, an appropriate course of action was identified, that should be taken in the event the errors occur during production operation. These errors were identified within the logon procedure and the Rotobin Issuing Transaction. In the event that an error occurs that has not been identified within this section, the ScreenShaper software shall default to the New Issue/Exit screen.

### 6.2 Logon Process

Zone	Field Name	Error Code	Error Description	Action
ScreenShaper logon	Username	Invalid Username	Username not found	Re-Enter Username
ScreenShaper logon	Password	Invalid Password	Password invalid for username	Re-Enter Username and Password
GOLD logon	Username	Invalid Username	Username not found	Re-Enter Username
GOLD logon	Password	Invalid Password	Password invalid for username	Re-Enter Username and Password

### 6.3 GOLD Rotobin Issuing

Zone	Field Name	Error Code	Error Description	Action
T30 Issue Screen	jcn	Invalid jcn	jcn can't be found	Display Error
T30 Issue Screen	part number	Invalid part number	part number can't be found	Display Error
T30 Issue Screen	quantity	Invalid quantity	Quantity exceeds ab quantity	Display Error
T30 Issue Screen	rem1	Invalid SSN	SSN not in approved list	Display Error

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**6.4 GOLD Rotobin Receipts**

Zone	Field Name	Error Code	Error Description	Action
Order Screen	req number + line ms-da	Invalid order number	Order Number can't be found. Manually Input This Receipt	Display Error Description
Order Screen	qty-ord	Invalid quantity	Invalid quantity for this order. Manually Input This Receipt	Display Error Description
T30 Issue Screen	order + line	Invalid order number	Order Number can't be found. Manually Input This Receipt	Display Error Description
T30 Issue Screen	part #	Invalid part number	Invalid part number	Display Error Description
T30 Issue Screen	bin-lo	Invalid Bin Location	Bin Location can't be found. Manually Input This Receipt	Display Error Description

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**ATTACHMENT A**

(22L) RACK #: DRWR3

(Q) QUANTITY: 10



(IP) PART #: D-150-0169



(22L) RACK #: DRWR3

(Q) QUANTITY: 10



(IP) PART #: D-150-0169





SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**ATTACHMENT B**

```

+08:26:33-----10/12/99-----P.TTYS6---GAB002---+
|                T30 ISSUE TO WIP - CREATE NO DOCUMENT                |
+-----+-----+-----+
|issue-----+-----+-----+
|Ajcn      :                      reason c:      | Prem:      | |
|from csb  :                      doc date:      | noun:      |
|from cond:                      1348 rec:      | nsn :      |
|part no.  :                      T30 wo:        | um  :      |
|serial no:                      pogfp wo:       | make:      |
|voucher   :                      pocap wo:      | sour:      |
|issue qty:                      afto   :        | errc:      |
|remarks   :                      | reor:      |
|          :                      | sl  :      |      ab:      |
+-----+-----+-----+
|4411-----+-----+-----+
|Bsapp doc :                      shop no :      | tkr       :      |
|del loc   :                      pca log :      | need date:      |
|signature:                      | work stop:      |
|4411 rcml:                      |
|rem2:                          |
|rem3:                          |
+-----+-----+-----+
|pr-----+-----+-----+
|Cpr remark:                      |
|          :                      |
|          :                      |
+-----+-----+-----+
F8 - System Inquiry

```

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**ATTACHMENT C**

```

+12:19:27-----10/14/99-----P.TTYR0---JLD016--+
|receiving len:POPOR CHOOSE 1:NONE POPOR RECR T10 T20 T23 T24 T25 T26 T66
+-----+
|order :                      cond :   phyRCV:      Prem:
|line  :                      carrie:   avail:      csb :
|recvr :                      price :             noun:
|part #:                      laborP:             nsn :
|q rcvd:                      rcvd-c:             um  :
|shpdoc:                      rcvd-d:             PNor:
|fr loc:                      tag no:             orde:
|awo  :                      bin-lo:             rcvd:
|remark:                                     duc  :
|serial:                      prev:             enta  rom:  make:  sic:  eric:
+-----+
|SOS BOARD   seq jcn          qty-req qty iss pr   ws voucher need dat csb
+-----+
|ISSUE:
|STOCK:
|
|4411(Y/N):Y
+-----+
order number   PH-inq

```

## SYSTEM REQUIREMENTS

## PSD DATA COLLECTION SYSTEM

## ATTACHMENT D

```

+12:54:47-----10/26/99-----P.TTYS6---GAB002---+
|               INVENTORY WAREHOUSE MAINTENANCE               |
+-----+-----+-----+-----+-----+-----+-----+
|CSB      :KC0001 - PCA56      NSN :5821-01-103-8155  Clo:102  prime:Y|
|Part     :5821-01-103-8155    SMRC:P      m/b:B u/m:EA  Glo:44  sec :U|
|Noun     :CONTROL,RADIO SET   ERRC:T      ord:G src:FLZ mdr:  usage:|
+-----+-----+-----+-----+-----+-----+-----+
|1 GFP pr:1664.79              Acct Bal:              1 Suspen:|
|2 CAP pr:.00                  Receipts:              1 2 Servcb:|
|3 lab pr:.00                  Turn-ins:              1 3 Unserv:|
|4 G009 :                      Reloc In:              4 Repair:|
|5 freeze:                    TempTrIn:              5 Disp-S:|
|6 gpa :                      Issues :              1 6 Disp-U:|
|7 cur ro:0                    Shipment:              7 ShipCy:|
|8 cur sl:0                    Scrap :              8 InactS:|
|   prv ro:                    Dispostn:              1 9 InactU:|
|   prv sl:                    RelocOut:             10IT Out:|
|BinB1:      T1:S   T4:        TmpTrOut:             11IT In :|
|   B2:      T2:   T5:        On-order:              Hfp wkst:|
|   B3:      T3:   T6:        Last Phy:|
|enter:02/19/99  Liss:03/30/99|
|Lactv:03/30/99  Lphy:|
+-----+-----+-----+-----+-----+-----+-----+
UP-toggle.: F1-next,F2-prev,F3-cond,F4-tran,F5-insp,F6-ord,FLD-nsn

```

SYSTEM REQUIREMENTSPSD DATA COLLECTION SYSTEM**ATTACHMENT E**

```

+13:00:34-----10/26/99-----P.TTYS6---GAB002---+
lin cw(csb)part number      s t req number      line  qty-ord  qty-due
  step  mr/ex-cd mrr/st  order      p awo      ms-da date-ord date-due
-----
  1 KC0001 5821-01-103-8155      C G EZ9428-9050      M100          1
    F              90504011      YG437      02/19/99
  2 KC0001 5821-01-103-8155      R G EZ9428-9081      M103          1
                 90504011      YG437      03/22/99 04/03/99

```

CURR:000001 LAST:000001 F1-next, F2-prev, F3-more, F4-1stP, F5-lastP

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